TECHNOLOGY SYSTEMS FOR MUNICIPAL FIRE STATION CITY OF LEON VALLEY

TEXAS

TECHNOLOGY - INDEX OF DRAWINGS	
SHEET NO.	SHEET NAME
T0.0	TECHNOLOGY - INDEX SHEET
T1.0	TECHNOLOGY - SITE PLAN
T1.1	TECHNOLOGY - FLOOR PLAN
T1.2	TECHNOLOGY - TOWER PLAN AND
	ABOVE FLOOR PLANS
T5.1	TECHNOLOGY - DETAILS
T5.2	TECHNOLOGY - DETAILS
T5.3	TECHNOLOGY - DETAILS
T5.4	TECHNOLOGY - DETAILS
T5.5	TECHNOLOGY - DETAILS
T5.6	TECHNOLOGY - DETAILS
T5.7	TECHNOLOGY - DETAILS

STRUCTURED CABLING LEGEND

# -	NUMBER OF CAT 6 VOICE/DATA CABLES/JACKS

TELECOMMUNICATIONS OUTLET

NUMBER OF CAT 6 VOICE/DATA CABLES/JACKS

TELECOMMUNICATIONS OUTLET INSTALLED IN

WALL MOUNT PHONE (ONE CAT 6 JACK/CABLE)

RACEWAY

FLOOR MOUNTED OUTLET (FLOOR
BOX BY ELECTRICAL CONTRACTOR)

CEILING MOUNTED DATA OUTLET

CEILING MOUNTED OUTLET FOR WIRELESS AP (1 CAT 6 CABLE)

JUNCTION BOX (16"x16"x6" UNLESS OTHERWISE NOTED)

CABLING SLEEVE (1-1/4" UNLESS NOTED OTHERWISE)

STANDARD IP DOME SURVEILLANCE CAMERA, (1) CATEGORY 6 CABLE

GENERAL SYMBOL LEGEND

DETAIL NUMBER
SHEET NUMBER

DETAIL NOTATIONS

NORTH

NORTH ARROW

(#) KEYNOTES

MER MAIN EQUIPMENT ROOM

TR TELECOMMUNICATIONS ROOM

ETR EXISTING TO REMAIN

PBO PROVIDED BY OTHERS
AFF ABOVE FINISHED FLOOR

AC ABOVE COUNTER
EC DIVISION 26 ELECTRICAL CONTRACTOR

PSC PREMISE SECURITY CONTRACTOR

SCC STRUCTURAL CABLING CONTRACTOR

AVC AV/MULTIMEDIA CONTRACTOR UNO UNLESS NOTED OTHERWISE

PREMISE SECURITY LEGEND

R CARD READER

MC MASTER INTERCOM CONTROL STATION

IC INTERCOM

(AP)

(C)

R DOOR RELEASE

(DC) DOOR CONTACT

EL ELECTRIFIED LATCH

(ES) ELECTRIFIED STRIKE

STANDARD IP DOME SURVEILLANCE CAMERA, (1) CATEGORY 6 CABLE

MULTIMEDIA AUDIO/VISUAL LEGEND

VC

VOLUME CONTROL LOCATION

PTT

PUSH-TO-TALK LOCATION

AV#

AUDIO/VISUAL ROUGH-IN LOCATION

EC1

AV WALL CABINET

P1

MULTIMEDIA PROJECTOR

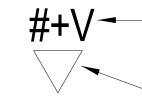
MULTIMEDIA FLAT PANEL DISPLAY



LOUD SPEAKER, CEILING MOUNTED



LOUD SPEAKER, WALL MOUNTED



NUMBER OF CAT 6 VOICE/DATA CABLES/JACKS + VIDEO

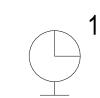
TELECOMMUNICATIONS OUTLET

CAM

HD COLOR PTZ CAMERA



DOCUMENT CAMERA



CLOCK AND TIMER LOCATION

GENERAL NOTES

- 1. ALL CABLES SHALL BE CONCEALED.
- 2. ALL CONDUIT MEASUREMENTS REFER TO STANDARD CONDUIT TRADE SIZES.
- 3. NOT ALL KEYNOTES MAY BE UTILIZED ON EVERY SHEET.
- 4. THE SCOPE OF WORK DESCRIBED IN THESE TECHNOLOGY DRAWING SHEETS ARE FOR THE ROUGH-IN ONLY AND INCLUDE THE OUTLET BOXES AND CONDUIT WITH PULL STRING FOR THE STRUCTURED CABLING, PREMISE SECURITY AND MULTIMEDIA AUDIO/VISUAL DEVICES THAT WILL BE INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT.
- 5. EACH CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY SLEEVES, WHETHER OR NOT SPECIFICALLY NOTED ON PROJECT DRAWINGS. ALL SLEEVES SHALL BE 1-1/4" UNLESS NOTED OTHERWISE ON THE DRAWINGS. CABLE FILL PERCENTAGE SHALL NOT EXCEED 40%.
- 6. EVERYTHING SHOWN ON THE DRAWINGS SHALL BE PROVIDED AND INSTALLED BY THE APPROPRIATE CONTRACTOR UNLESS NOTED OTHERWISE. ALL CONDUIT, BACKBOXES, JUNCTION BOXES, FLOOR BOXES AND IN-WALL BOXES SHALL BE PROVIDED BY EC UNLESS NOTED OTHERWISE.
- 7. DEVICE LOCATION: CONTRACTOR SHALL COORDINATE ALL AV/MULTIMEDIA DEVICE LOCATIONS WITH OWNER AND CONSULTANT DURING PRECONSTRUCTION PHASE. LOCATIONS SHOWN HEREIN ARE APPROXIMATE AND AVC SHALL DETAIL LOCATIONS IN PRECONSTRUCTION SUBMITTAL PLANS FOR CONSULTANT APPROVAL. CONTRACTOR SHALL NOT PROCEED WITHOUT WRITTEN APPROVAL OF SUBMITTED DRAWINGS.
- 8. ALL ELECTRICAL POWER WIRING FOR AUDIO/VISUAL CIRCUITS SHALL DEDICATED FOR AUDIO/VISUAL USE, SHALL BE ON THE SAME PHASE, AND SHALL NOT BE SHARED WITH OTHER BUILDING EQUIPMENT, INCLUDING BUT NOT LIMITED TO LIGHTING, HVAC, MECHANICAL, ETC.
- 9. AT EACH DOOR WITH CARD READER, THE PREMISE SECURITY CONTRACTOR (PSC) SHALL PROVIDE AND INSTALL A DPDT DOOR POSITION SWITCH (CONNECTED TO BOTH THE ACCESS CONTROL SYSTEM AND THE INTRUSION DETECTION SYSTEM), CARD READERS, AND PROVIDE AND INSTALL ALL NECESSARY LOW-VOLTAGE WIRING FROM ELECTRONIC LOCKING HARDWARE (ELECTRIC STRIKE, POWERED CRASHBAR OR ELECTRIC TRIM/HINGE) TO POWER SUPPLIES. OTHERS WILL PROVIDE LOCKING HARDWARE. REQUEST TO EXIT DEVICE SHALL BE INTEGRAL TO THE DOOR HARDWARE

MUNICIPAL FIRE STATION
CITY of LEON VALLEY
300 EL VERDE ROAD, LEON VALLEY, TEXAS

140 Third Street South Stillwater, MN 55082 651.430.2772 fax: 651.430.2661

78238

 Revision:
 Date:

 Project No.:
 12018

 Checked By:
 Checker

 Designed By:
 Designer

 Drawn By:
 Author

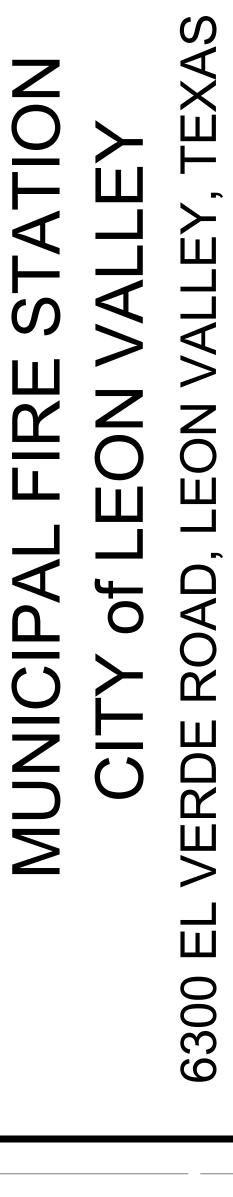
 Scale:
 12" = 1'-0"

 Date:
 03.19.2014

TECHNOLOGY -INDEX SHEET

T0.0



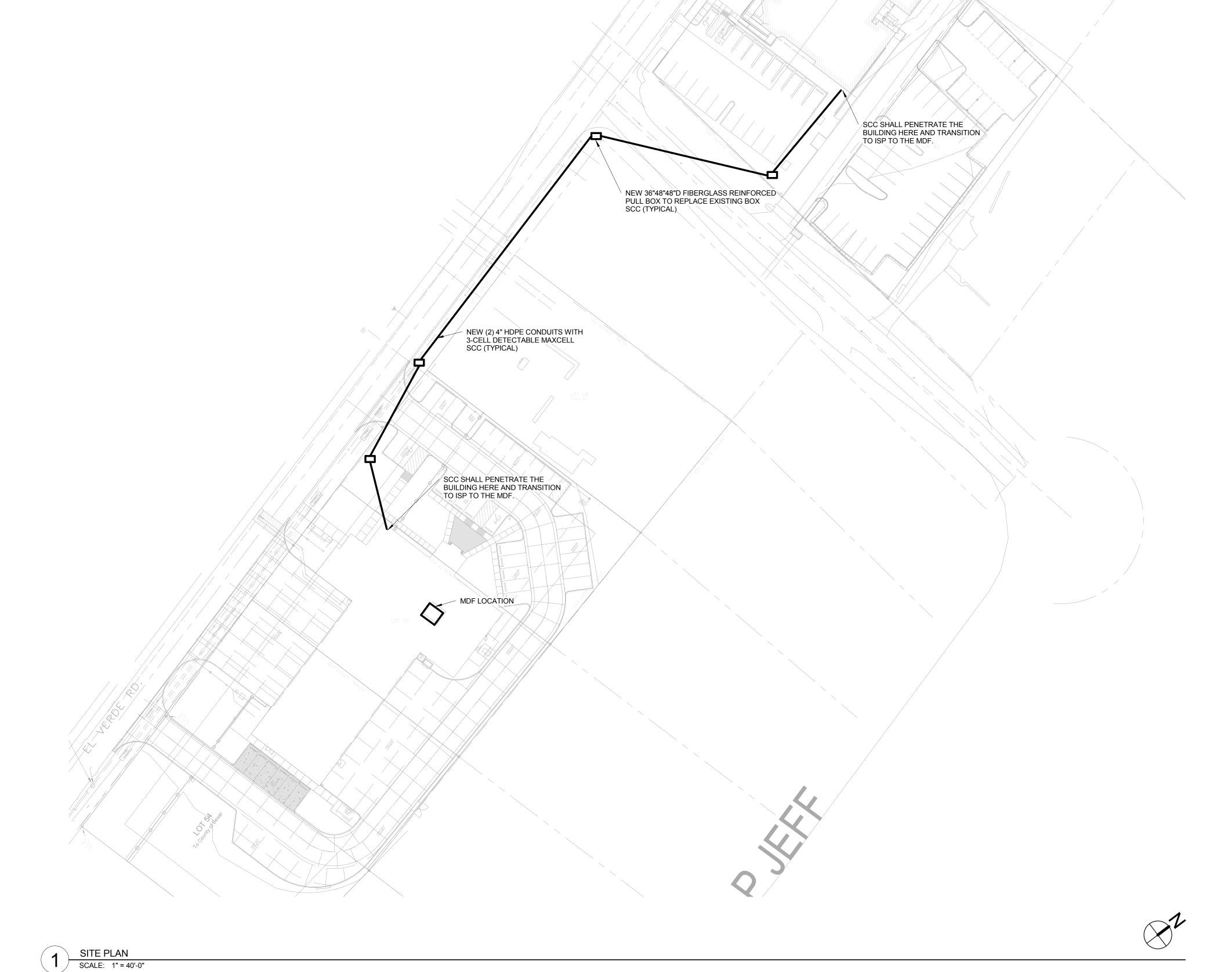


Revision:	Date:
Project No.:	12018
Checked By:	
Designed By:	
Drawn By:	AD
Scale:	1" = 40'-0"
	03.19.2014

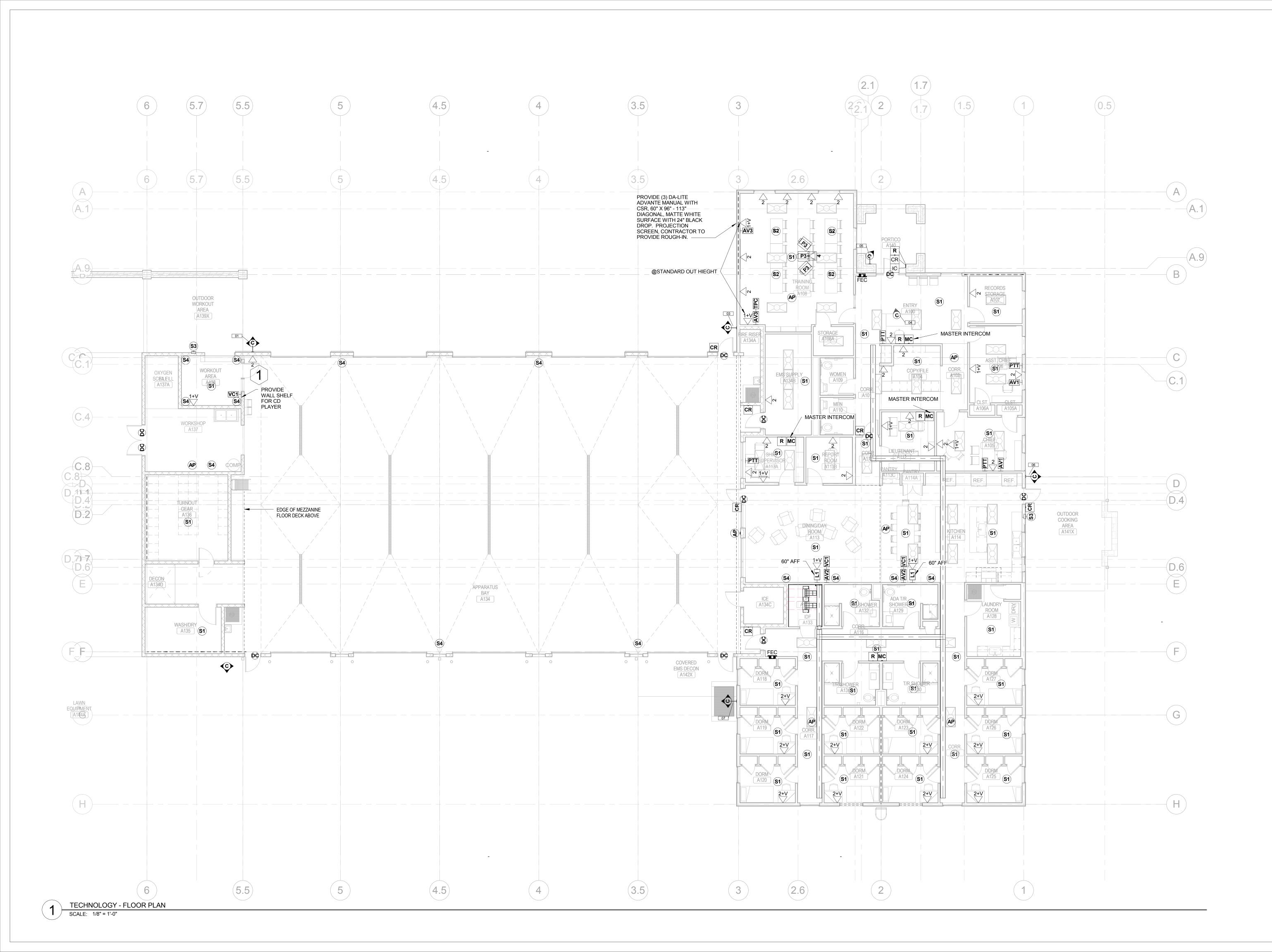
TECHNOLOGY - SITE PLAN

T1.0

Copyright-All Rights Reserved



MDF LOCATION





78238 NO L Ш 6300

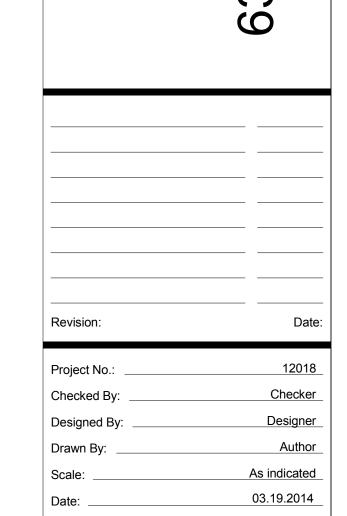
evision:	Date:
oject No.:	12018_
necked By:	Checker
esigned By:	Designer
awn By:	
ale:	
ite:	03.19.2014

TECHNOLOGY -FLOOR PLAN

T1.1



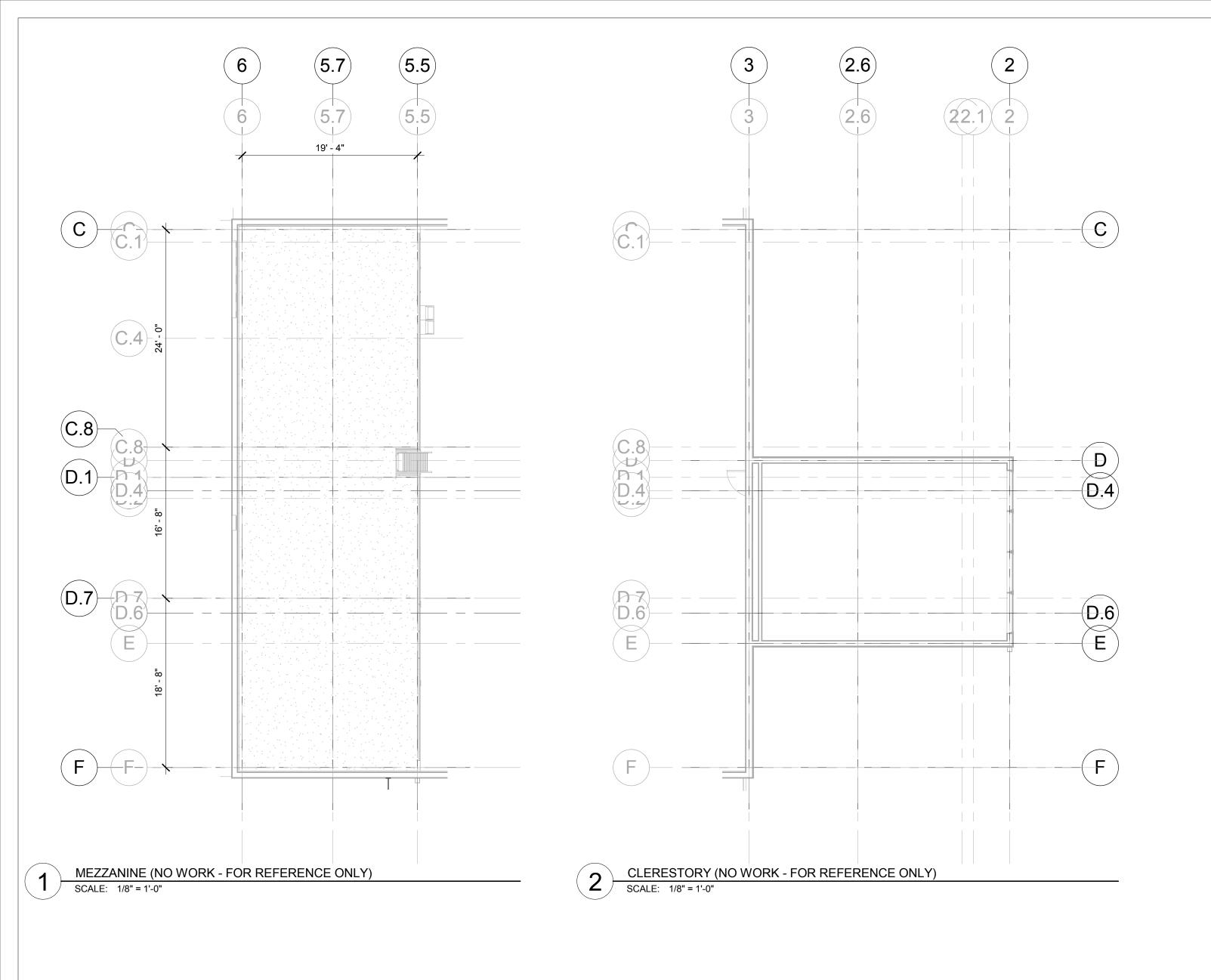
Ш 6300

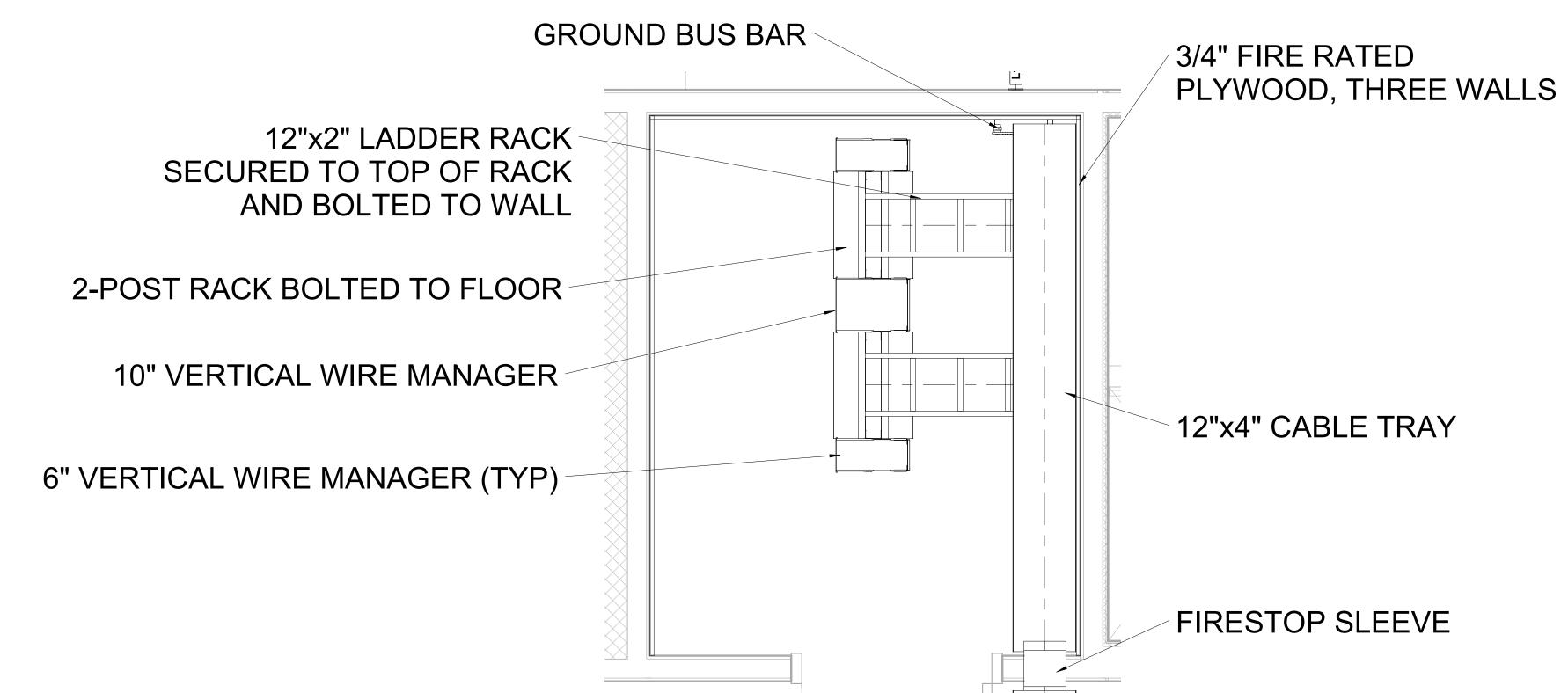


TECHNOLOGY -**TOWER PLAN AND** ABOVE FLOOR **PLANS**

T1.2

3 IDF - ENLARGEMENT
SCALE: 3/4" = 1'-0" Copyright-All Rights Reserved





BONDING CONDUCTOR SIZING CHART		
LENGTH (FEET)	SIZE (AWG)	
LESS THAN (<) 13'	# 6	
14' - 20'	# 4	
21' - 26'	# 3	
27' - 33'	# 2	
34' - 41'	# 1	
42' - 52'	# 1/0	
53' - 66'	# 2/0	
GREATER THAN (>) 66'	# 3/0	

FACILITY SPACE,

IDENTIFICATION OF SPACE

COORDINATE

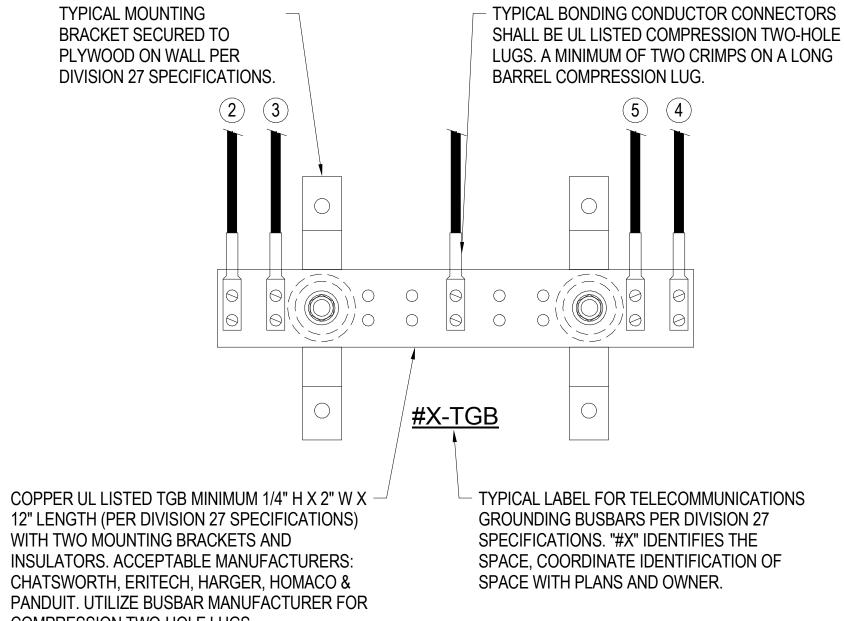
WITH OWNER.

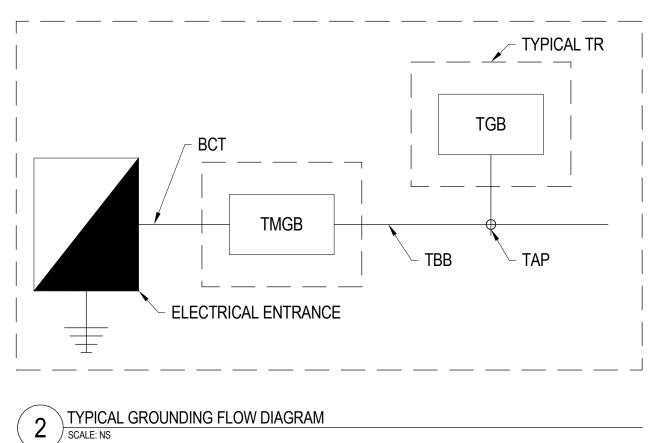
GROUNDING & BONDING GENERAL NOTES

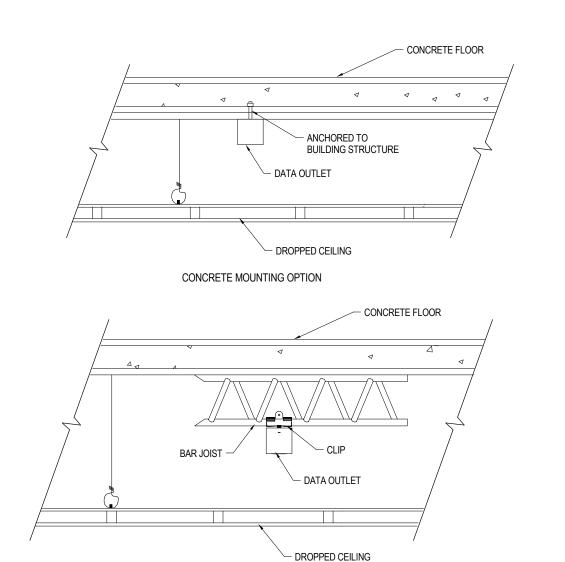
- ALL TELECOM GROUNDING WORK SHALL BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- REFER TO GROUNDING AND BONDING DIVISION 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- BONDING CONDUCTORS SHALL BE #3/0 AWG COLOR GREEN INSULATED COPPER CONDUCTOR OR SIZED PER "BONDING CONDUCTOR SIZING CHART" (ANSI J-STD-607-B) IN PATHWAY.
- FASTENING BONDING CONNECTOR TWO -HOLE LUGS TO ALL BUSBARS SHALL BE CLEANED AND APPLY A COPPER ANTI-OXIDANT TO THE CONTACT AREA OF BOTH THE CONNECTOR LUG AND THE BUSBAR
- BONDING CONDUCTORS AND BUSBARS SHALL BE LABELED. WITH IDENTIFICATION IN ACCORDANCE WITH THE REQUIREMENTS OF ANSI/TIA/EIA-606-B.
- BONDING CONDUCTORS SHALL BE LABELED WITH IDENTIFICATION LABEL NOTED BELOW AND SECURED WITH CABLE TIE TO EACH CONDUCTOR. (ANSI J-STD-607-B) "IF THIS CONNECTOR OR CABLE IS LOOSE OR MUST BE REMOVED, PLEASE CALL THE BUILDING TELECOMMUNICATIONS MANAGER".
- DIVISION 27 CONTRACTOR SHALL PERFORM CONTINUITY TESTING MEASUREMENTS OF THE GROUNDING RESISTANCE TO NOT EXCEED 0.1 OHM BETWEEN:
- A. THE TMGB AND THE NEAREST GROUNDING ELECTRODE. B. THE TGB AND THE NEAREST GROUNDING ELECTRODE. C. EACH TGB AND THE PATHWAY(S), RACK(S), CABINETS(S) AND APPLICABLE EQUIPMENT.

GROUNDING & BONDING RISER DETAIL NOTES

- (1) BONDING CONDUCTOR FOR TELECOMMUNICATIONS (BCT) TO BUILDING GROUNDING ELECTRODE. BCT SHALL NOT BE SMALLER THEN THE TBB.
- (2) BCT TO NEAREST BUILDING STEEL STRUCTURE. IF APPLICABLE UTILIZED EXOTHERMIC WELDING CONNECTION TO BUILDING STEEL.
- (3) TELECOMMUNICATIONS BONDING BACKBONE (TBB) FOR GROUNDING EQUIALIZER (GE), IF APPLICABLE.
- (4) TYPICAL TBB(S) THAT INTERCONNECTS ALL TGB(S) WITH THE TMGB.
- (5) BCT TO TELECOMMUNICATIONS CABLE RUNWAYS(S), RACK(S), CABINET(S) AND APPLICABLE EQUIPMENT. DAISY CHAINING OF BCT AT RELAY RACKS IS NOT ACCEPTABLE. EACH RACK IS TO HAVE A BCT TO A COMPRESSION LUG TAP TO DEDICATED HOMERUN ACT BACK TO THE TGB. SEE DETAILS.







BAR JOIST MOUNTING OPTION

ABOVE CEILING TERMINATION DETAIL

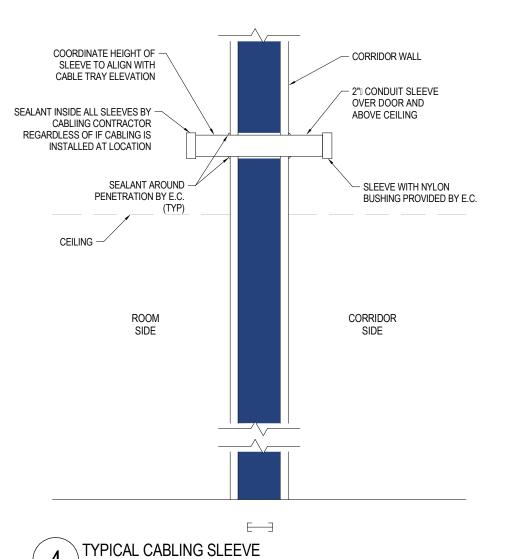
MANUFACTURERS: CHATSWORTH,

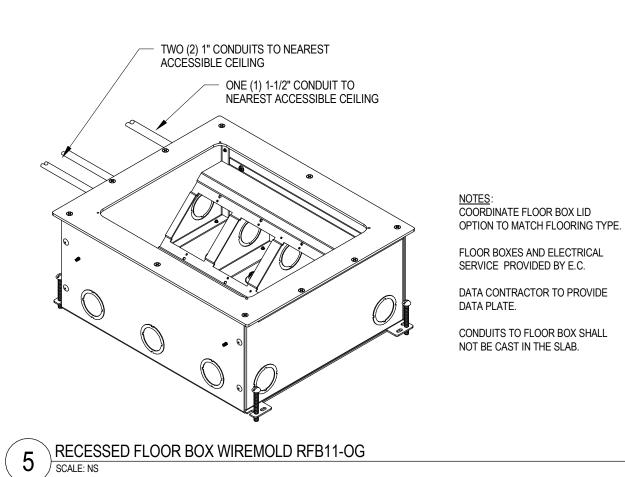
ERITECH, HARGER, HOMACO &

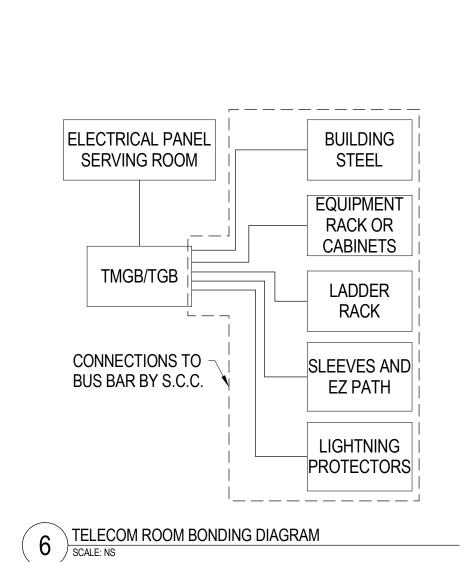
COMPRESSION TWO-HOLE LUGS

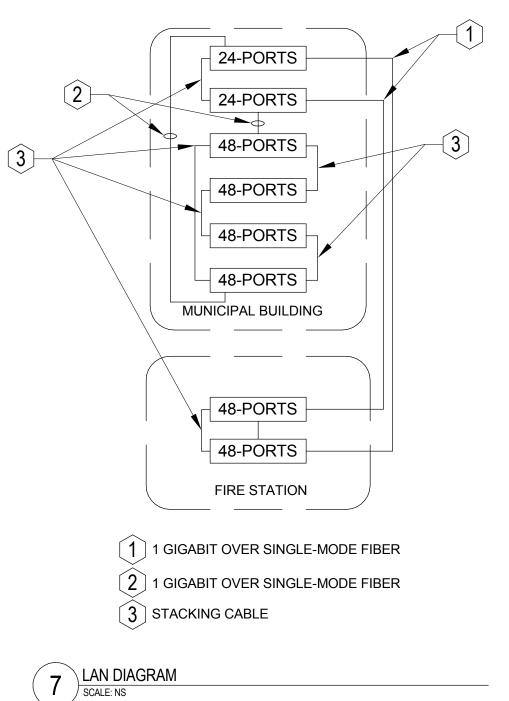
PANDUIT. UTILIZE BUSBAR

MANUFACTURER FOR









TECHNOLOGY -**DETAILS**

Revision:

Project No.:

Checked By:

Designed By.

Drawn By:

Copyright-All Rights Reserved

6300

12018

Checker

Designer

Author

12" = 1'-0"

03.19.2014

elert & associates

651.430.2772 fax: 651.430.2661 www.elert.com

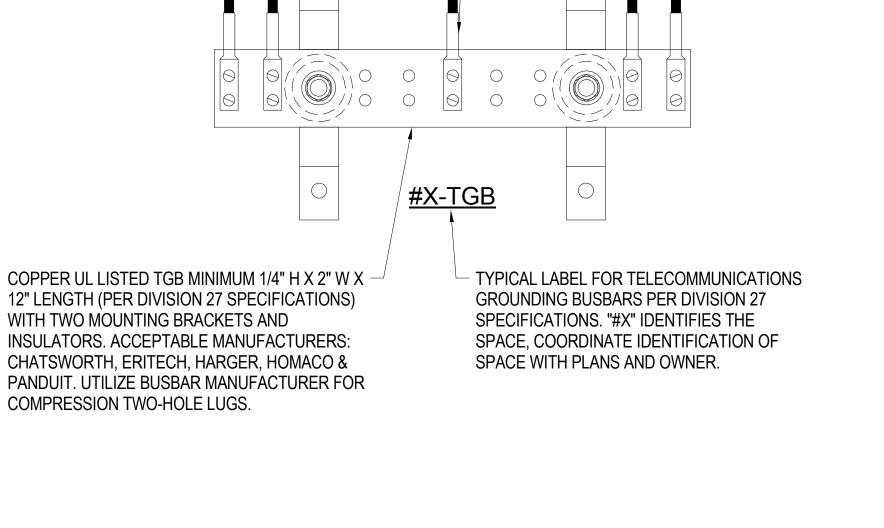
 ∞

3

782

140 Third Street South Stillwater, MN 55082

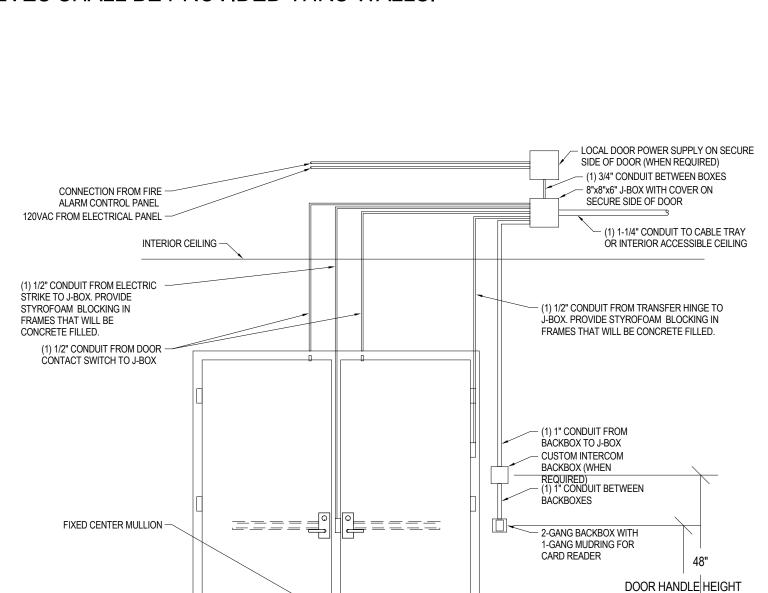
り

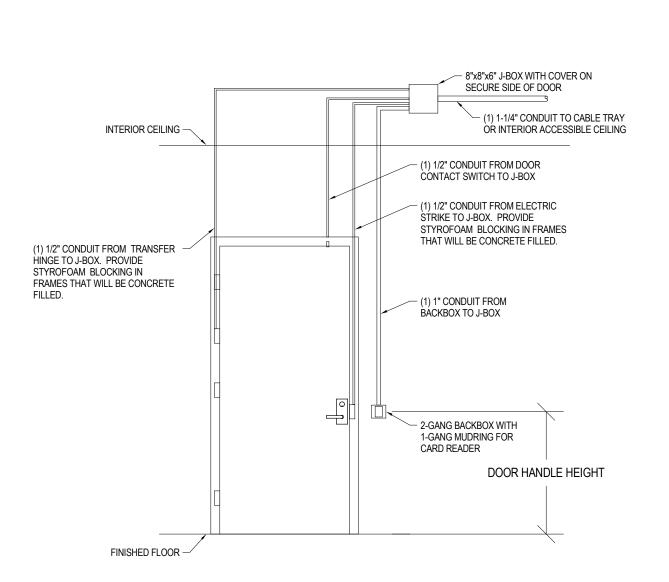


GROUNDING AND BONDING DETAIL

GENERAL NOTES:

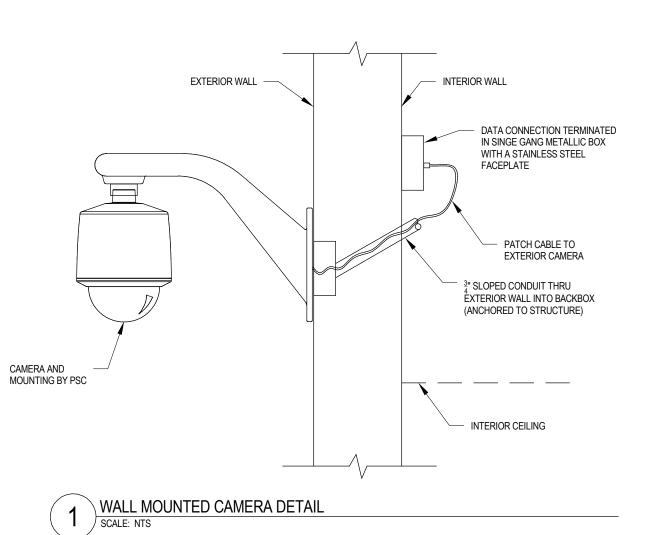
- 1. REFER TO SECURITY SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 2. PROVIDE WEATHER PROOF/WATER RESISTANT ENCLOSURE WITH HEATER/BLOWER FOR ALL EXTERIOR CAMERAS.
- 3. ALL CABLES FROM CAMERAS SHALL BE INSTALLED IN FLEXIBLE AND/OR METALLIC CONDUIT.
- 4. ALL MOUNTING DETAILS ARE REFERENCE FOR ALL FIXED DOME, 180°, 360°, PTZ, AND "BULLET/BOX" CAMERAS.
- 5. ALL DEVICE LOCATIONS REQUIRE BACK-BOX AND CONCEALED CONDUIT ROUTED WITHIN WALL TO CEILING AREA. CONTINUOUS CONDUITS SECTIONS SHALL BE PROVIDED AT ALL AREAS EXPOSED TO PUBLIC VIEW OR AREAS WITH ROUTINGS ACROSS INACCESSIBLE CEILINGS. J-HOOKS CAN BE PROVIDED ABOVE ACCESSIBLE CEILING AREAS. CONDUIT SLEEVES SHALL BE PROVIDED THRU WALLS.

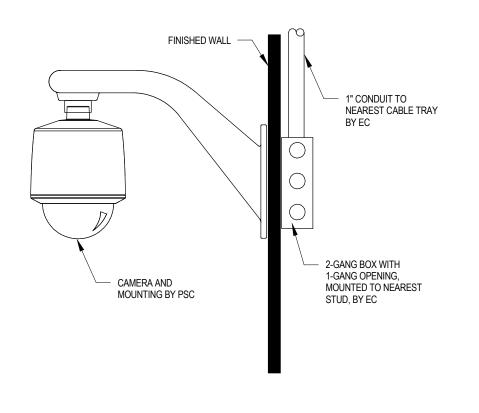




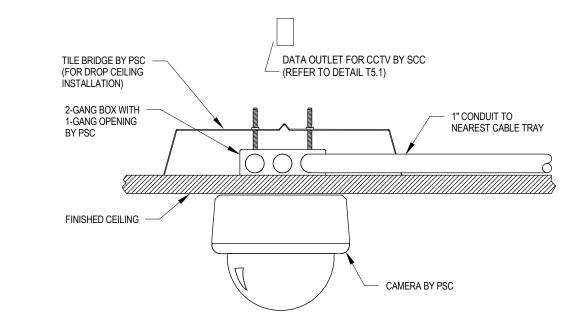
TYPICAL EXTERIOR DOUBLE DOOR CONDUIT ROUGH-IN FOR NEW CONSTURCTION

7 TYPICAL EXTERIOR SINGLE DOOR CONDUIT ROUGH-IN FOR NEW CONSTURCTION

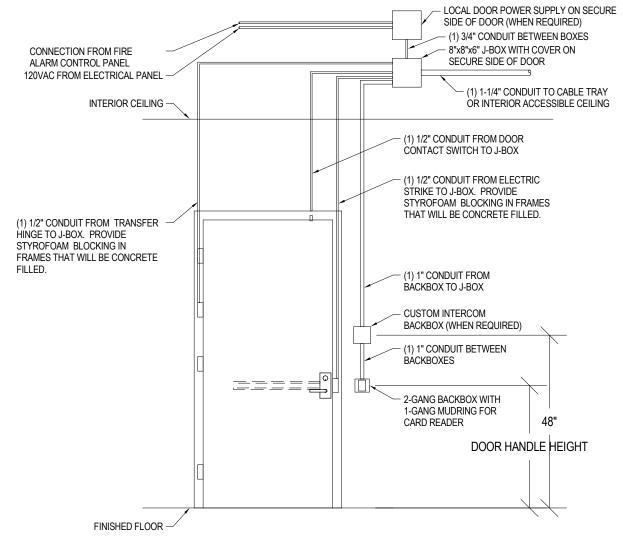


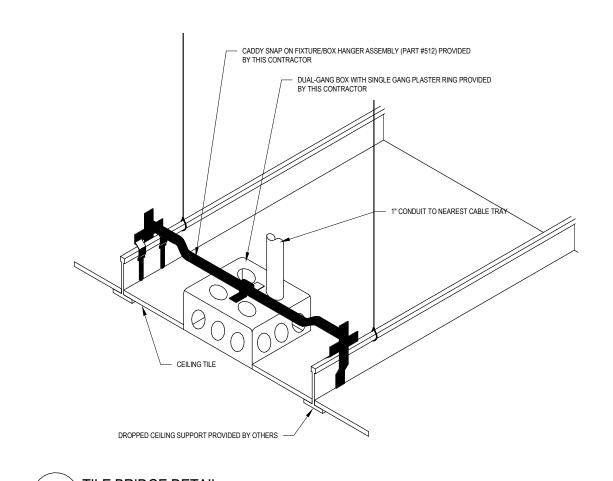






CEILING MOUNTED CAMERA DETAIL
SCALE: NS





<u></u>	TYPICAL INTERIOR SINGLE DOOR CONDUIT ROUGH-IN FOR NEW CONSTURCTION
J	SCALE: NS

Camera Type	Mounting Structure	Location	View	Corridor View Mode
C10	Exterior Wall	By Workout Area A138	Activity across outside of building	
C10	Exterior Wall	By Wash/Dry A135	Activity across outside of building	
C6	Exterior Wall	By Fire Riser A134A	Activity across outside of building	
C2	Drop Ceiling	Entry A100	Faces of people entering building	
C3	Exterior Wall	Portico A140	Faces and activity in portico	
C10	Exterior Wall	Outdoor Cooking Area A141X	Activity across outside of building	
C6	Exterior Wall	By Dorm A118	Activity across outside of building	
	C10 C10 C6 C2 C3 C10	C10 Exterior Wall C10 Exterior Wall C6 Exterior Wall C2 Drop Ceiling C3 Exterior Wall C10 Exterior Wall	C10 Exterior Wall By Workout Area A138 C10 Exterior Wall By Wash/Dry A135 C6 Exterior Wall By Fire Riser A134A C2 Drop Ceiling Entry A100 C3 Exterior Wall Portico A140 C10 Exterior Wall Outdoor Cooking Area A141X	C10 Exterior Wall By Workout Area A138 Activity across outside of building C10 Exterior Wall By Wash/Dry A135 Activity across outside of building C6 Exterior Wall By Fire Riser A134A Activity across outside of building C2 Drop Ceiling Entry A100 Faces of people entering building C3 Exterior Wall Portico A140 Faces and activity in portico C10 Exterior Wall Outdoor Cooking Area A141X Activity across outside of building

8 CAMERA SCHEDULE SCALE: NS

Camera Type	Manufacturer	Part #	General Description
C1	Axis	P3364-V W/3.3-12mm Lens	Typical interior camera, 1.3mp
C1W	Axis	P3364-V W/2.5-6mm Lens	Typical interior camera, 1.3mp, wide angle lens, low light
C2	Axis	P3384-V	Interior camera, 1.3mp with WDR for exterior window or door within its FoV
C3	Axis	P3384-VE	Typical Exterior, 1.4mp WDR camera covering small areas like door entries
C4	Axis	P3367-V	High res, 5mp interior camera
C5	Axis	P3367-VE	High res, 5mp exterior camera covering large areas like parking lots or license plate recognition
C6	Arecont	AV8185DN-HB	Typical exterior 180 camera, 8mp for smaller outdoor areas
C7	Arecont	AV8365DN	Typical interior 360 camera, 8mp for 3-way corridors and similar areas
C8	Arecont	AV12186DN	Interior 180 camera, 12mp WDR for bright areas
C9	Arecont	AV20185DN	High res, 20mp 180 camera for gyms, cafeterias and other large areas
C10	Arecont	AV20185DN-HB	High res, weather resistant 20mp 180 camera for large exterior areas
C11	Arecont	AV20365DN-HB	High res, weather resistant 20mp 360 camera for parking lots
C12	Axis	Q6035-E	Medium res, weather resistant 2mp PTZ camera
C13	Axis	Q7401	Camera encoder for existing PTZ cameras to be encoded at 30fps at D1 resolution

CAMERA TYPE SCHEDULE

elert & associates

140 Third Street South
Stillwater, MN 55082
651.430.2772 fax: 651.430.2661
www.elert.com

MUNICIPAL FIRE STATION CITY of LEON VALLEY

Revision:	Date:
Project No.:	12018
01 1 15	
Checked By:	Checker
Designed By:	
	Designer
Designed By:	Designer

TECHNOLOGY - DETAILS

5.2

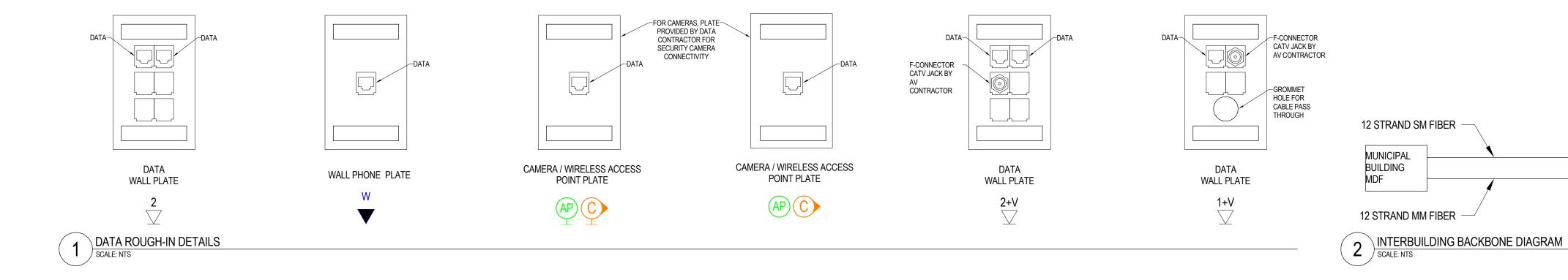




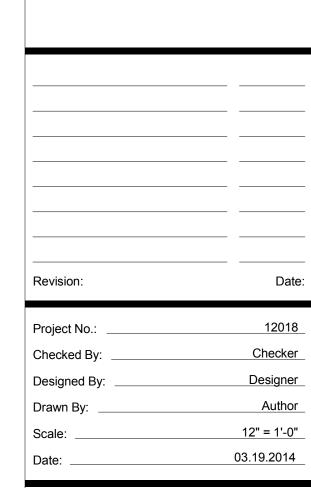
FIRE STATION MDF

> TECHNOLOGY -DETAILS

T5.3

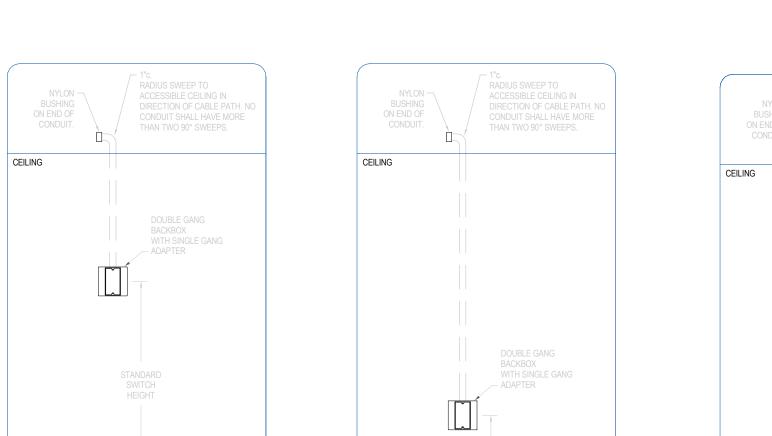


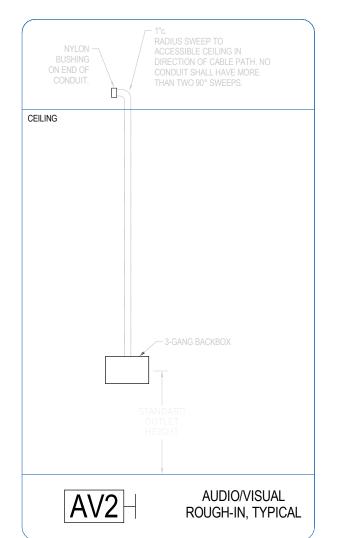
78238 NOL MUNIC 6300

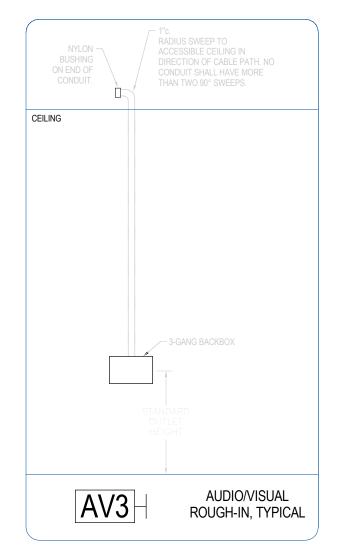


TECHNOLOGY -**DETAILS**

Copyright-All Rights Reserved

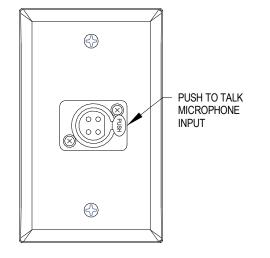






ELECTRICAL ROUGH-IN PROVIDED BY THE ELECTRICAL CONTRACTOR ABOVE

AUDIO/VIDEO DEVICES AND PLATES BELOW SHALL BE PROVIDED BY THE AV-TECHNOLOGY CONTRACTOR BY OTHERS UNDER SEPARATE CONTRACT

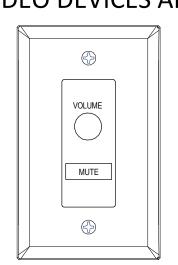


PUSH TO TALK ROUGH-IN, TYPICAL

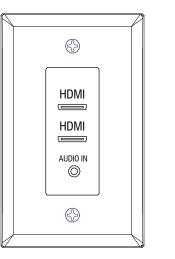
RADIUS SWEEP TO
ACCESSIBLE CEILING IN
DIRECTION OF CABLE PATH. NO
CONDUIT SHALL HAVE MORE

FIELD VERIFY "PTT" LOCATION WITH CONSULTANT/

NYLON — BUSHING ON END OF CONDUIT.

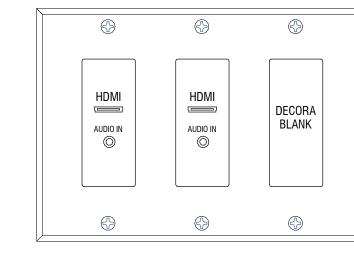


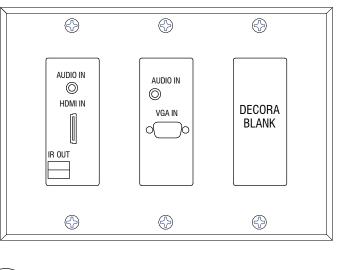
VC1 VOLUME CONTROL

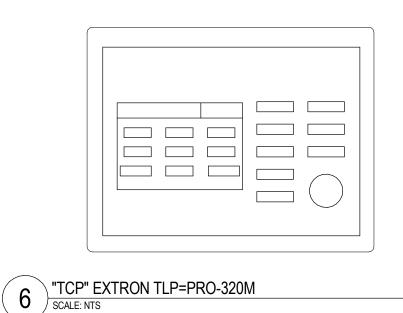


AUDIO/VISUAL ROUGH-IN,

TYPICAL







OF CABLE PATH. NO CONDUIT SHALL HAVE MORE THAN TWO 90° SWEEPS.

MOUNTING HEIGHT FOR FLAT PANEL DISPLAYS VARIES BY LOCATION

BY DATA CONTRACTOR

FLAT PANEL DISPLAYS SHALL

BE OWNER PROVIDED

FLAT PANEL DISPLAY LOCATION WALL MOUNT

ROUGH-IN, TYPICAL

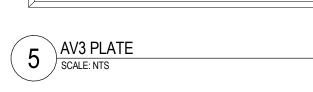






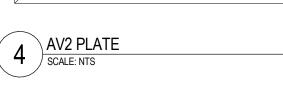




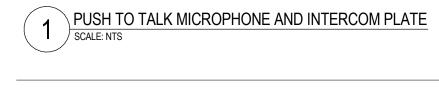


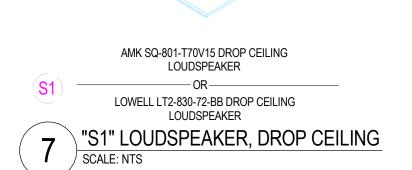


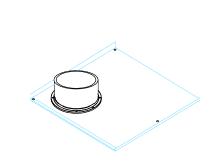






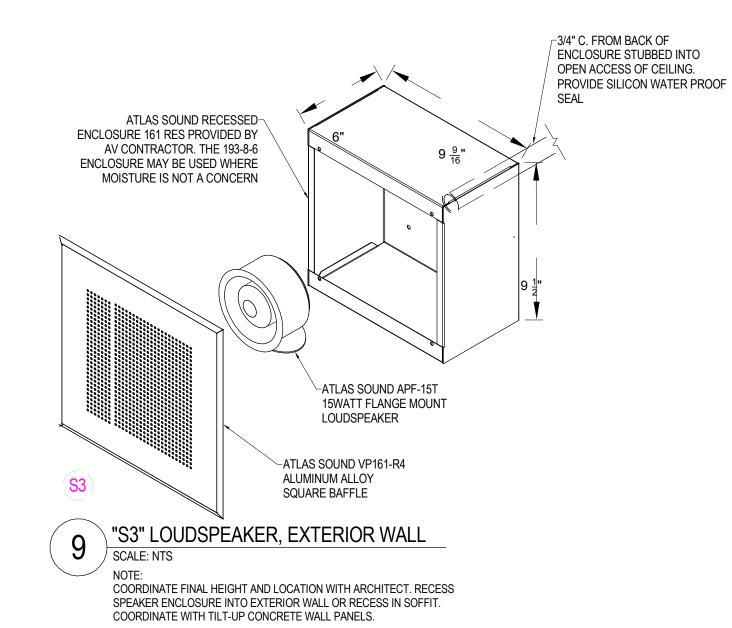


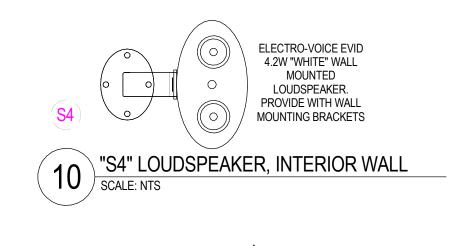








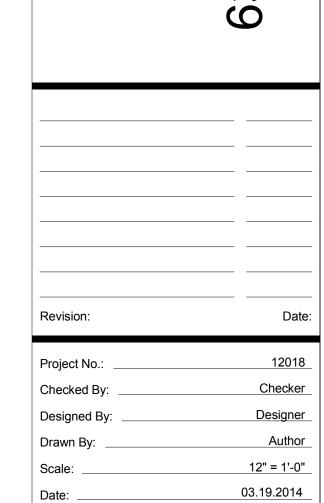






(11)	"S5" LOUDSPEAKER, HARD CEILING
	SCALE: NTS

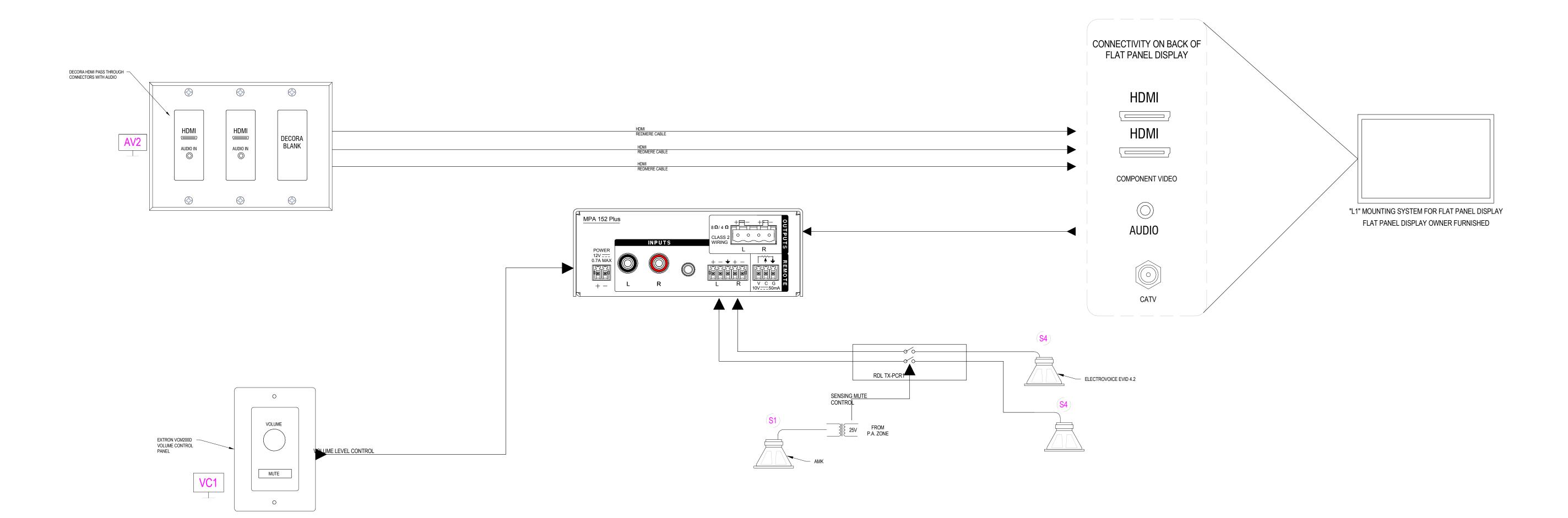




TECHNOLOGY -DETAILS

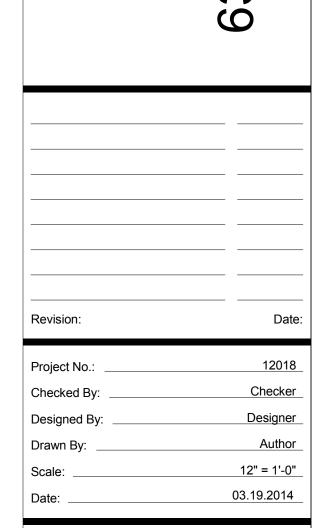
T5.5

Copyright-All Rights Reserved



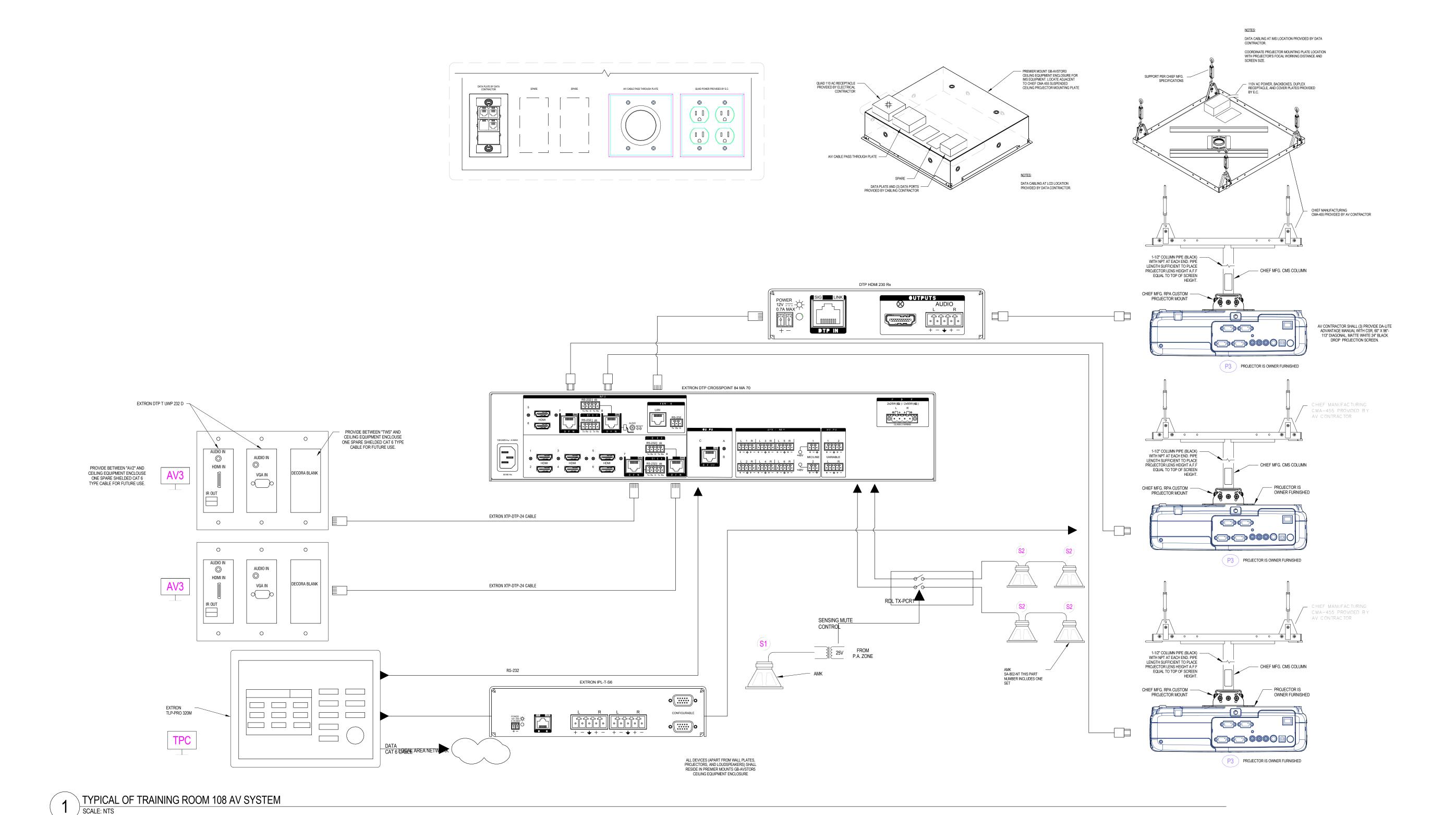
1 TYPICAL FOR DINING/DAY ROOM A113 SYSTEMS
SCALE: NTS





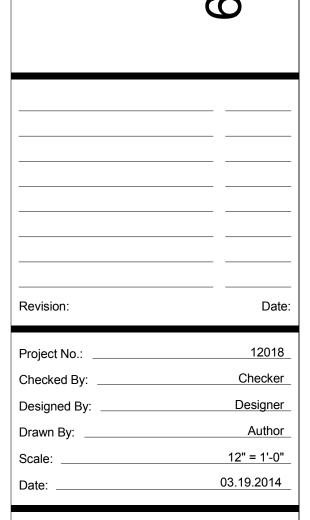
TECHNOLOGY -DETAILS

T5.6





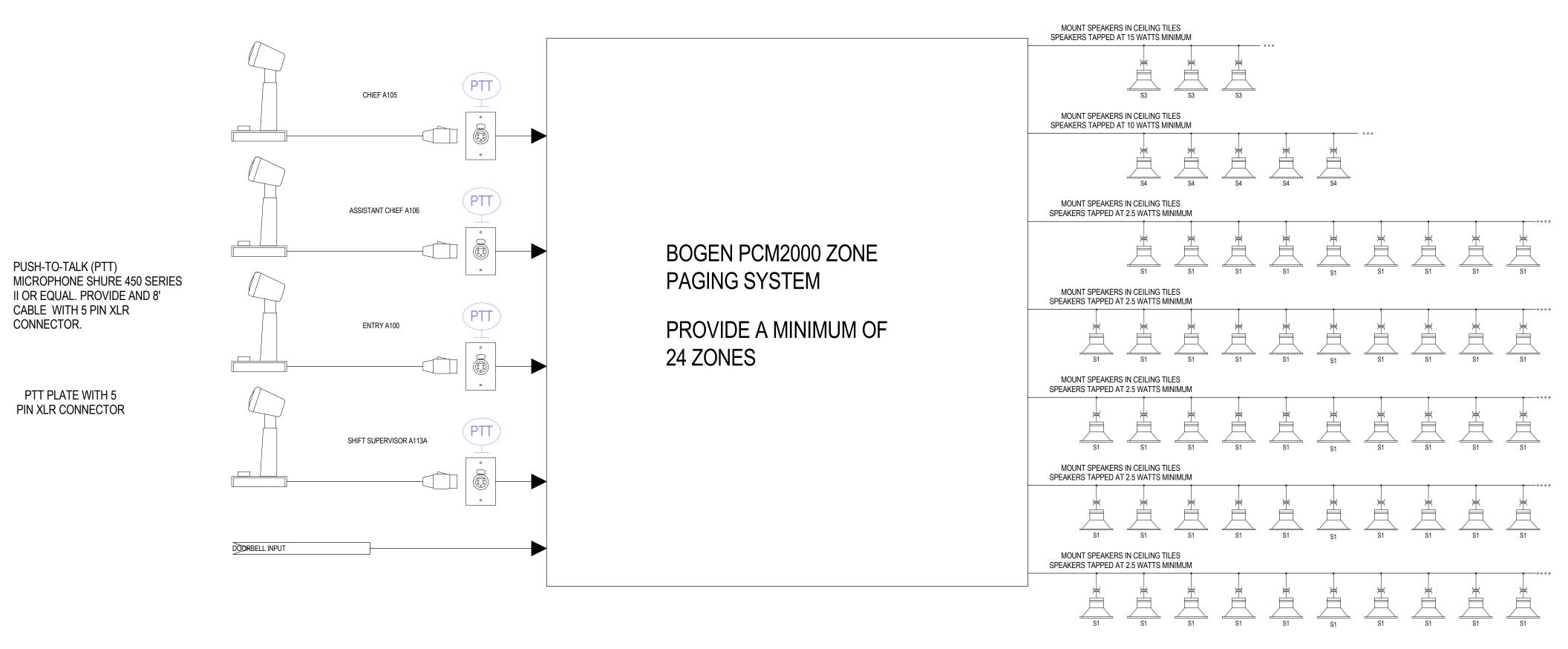




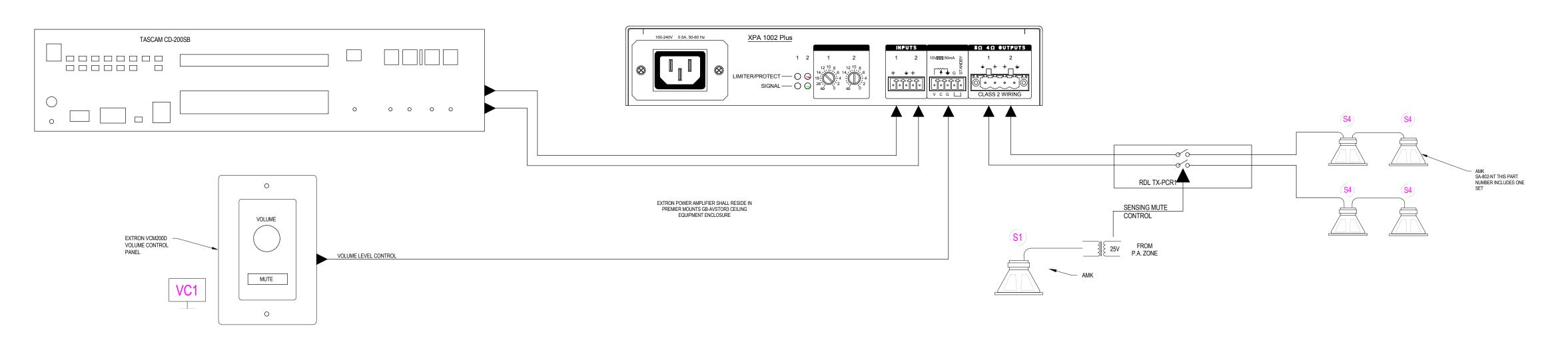
TECHNOLOGY -**DETAILS**

T5.7

Copyright-All Rights Reserved



TYPICAL OF FIRE STATION OVERHEAD PAGING SYSTEM



TYPICAL SOUND SYSTEM FOR WORKOUT AREA A138

SCALE: NTS